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LIST OF PRIOR ART CITED BY APPLICANT

INVENTOR: CHARLES THOMAS YOUNG

INVENTION: METHOD OF MANUFACTURING FOOTPRINT TILES

U.S. PATENT DOCUMENTS

Examiner Initial	Document #	Date	Name	Class	Subclass	Filing Date If Appropriate
AA	4,068,992		Buchel			
AB	4,535,022		Kato			
AC	4,661,054		Oberoi			
AD	5,080,959		Tanaka			
AE	5,398,458		Henriksen			
AF	5,670,228		Kakamu			
AG	5,830,551		Kakamu			
AH	5,834,081		Fanti			
AI	5,927,034		Cole			

FOREIGN PATENT DOCUMENTS

Document Number Translation	Date	Country	Class	Subclass
AI				[ ] YES [ ] NO
AI				[ ] YES [ ] NO
AK				[ ] YES [ ] NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

AL

Examiner

Date Considered

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Atty. Docket No.

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In U.S. Patent Number, 4,068,992, invented by, Buchel, titled, Apparatus for manufacturing tiles, an apparatus for manufacturing tiles by extrusion of clay or a similar material comprising a die adapted with a number of spaced apart pivotable rigid blades which are arranged such as to equalize the output speeds of several superposed layers of extruded material. Means are also provided substantially in the planes of the blades downstream of the outer ends thereof for projecting a pulverized powder product at right angles to the direction of extrusion into interstices between the layers. Impermeable coatings are added to the outer surfaces of the superposed layers and the assembly is then cut into piles of tiles which can then be delivered into an oven for baking, the heat ensuring removal of the impermeable coating and the separation powder product.

In U.S. Patent Number, 4,535,022, invented by, Kato, titled, Decorative tile and method for manufacturing the same, decorative tiles which may be bonded to the surfaces of columns and walls of a building are provided and a method for manufacturing the same is also disclosed. One surface of a tile blank made of a refractory material such as ceramic is coated with a metal layer by a metal spraying process so that a decorative tile looks gorgeous and even when a decorative tile is directly bonded to a concrete wall, it is not attacked or corroded.

In U.S. Patent Number, 4,661,054, invented by, Oberoi, et al., titled, Tile manufacturing apparatus, a manufacturing apparatus includes means for forming "green state" tiles on pallets. The pallets are then loaded on to racks for curing. The apparatus for loading the pallets on to shelves in the racks comprises pairs of supports which are carried by conveyors. The pairs of supports engage edges of the pallets and the conveyors move upwards to pick up the pallets as they are fed in timed relation to the apparatus by an infeed conveyor which also ensures that the pallets remain level as they are loaded. When all the supports are carrying a tile, a pusher pushes the pallets onto shelves in the racks.

In U.S. Patent Number, 5,080,959, invented by, Tanaka, et al., titled, Multilayer tile and method of manufacturing same, a multilayer tile, wherein the tile-materials of the first and third layers are substantially equal to each other in shrinkage during drying and firing and in thermal expansion coefficient after firing.

In U.S. Patent Number, 5,398,458, invented by, Henriksen, et al., titled, Process of manufacturing stone tile mosaics and apparatus therefor, a process of and apparatus for manufacturing tile mosaics from at least two stone slabs, such as marble or granite slabs. The process comprises the steps of: a) cutting each of the two slabs into a matrix of pieces while maintaining the original orientation of the pieces, b) classifying the pieces of each matrix into two or more sets of pieces, c) intermixing a first set of pieces of one slab with a second set of pieces of another slab while maintaining the original orientation of the pieces, thereby forming the mosaic. The cutting apparatus comprises: a) a platen having a resilient layer for supporting the slab, b) a gantry table saw having a plurality of blades and a rotatable table for supporting the platen, and c) a hold-down rack for securing the slab and platen during cutting. At least two grippers are used to intermix at least one set of pieces from one slab with at least one set of pieces from a second slab to form the mosaic. By mixing the color shades and grain patterns of several different stone slabs, a mosaic having a handset look is achieved. Adjacent rows of the newly formed mosaic matrix may be offset to further enhance the handcrafted appearance of the mosaic.

In U.S. Patent Number, 5,028,228, invented by, Kakamu, et al., titled, Tile having a pattern and its manufacturing method, a tile having a desired pattern is provided. The pattern goes through the tile in the thickness direction. For manufacturing such a tile, e.g. a partition plate 84 is disposed in a pressure forming die 91 so as to divide its inside space into an outer forming space 95 and an inner forming space 96. Light black granules and light red granules are filled respectively in the outer and inner forming spaces 95, 96. Then, the partition wall 84 is taken out from the die 91, and lining granules are filled over the colored granules. Thereafter, they are pressed into one body and burned.

In U.S. Patent Number, 5,830,551, invented by, Kakamu, et al., titled, Method for manufacturing a patterned tile, a method for manufacturing a tile having a desired pattern. The pattern goes through the tile in the thickness direction. For manufacturing such a tile, e.g. a partition plate 84 is disposed in a pressure forming die 91 so as to divide its inside space into an outer forming space 95 and an inner forming space 96. Light black granules and light red granules are filled respectively in the outer and inner forming spaces 95, 96. Then, the partition wall 84 is taken out from the die 91, and lining granules are filled over the colored granules. Thereafter, they are pressed into one body and burned.

In U.S. Patent Number, 5,834,081, invented by, Fanti, titled, Tiles, method of manufacturing tiles from plastic material and equipment for facilitating such manufacture, a plastics tile (9) is made up of a plurality of discrete plastics pieces (10, 11, 12) which are shaped relative to each other and assembled together to abut edge to edge in lower regions of the pieces and form a recess above each mutually abutting edge of abutting pieces in upper regions of the pieces. The pieces are joined together along said mutually abutting edges below the recesses to form a unitary tile.

In U.S. Patent Number, 5,927,034, invented by, Cole, titled, Flexible cement textured building tile and tile manufacturing process, a building tile for covering a building surface includes a flexible backing layer having a rearward face for securing to the building surface and a forward face; and a flexible cement layer secured to the forward face. The tile preferably additionally includes adhesive material, where at least part of the rearward face is covered with the adhesive material for mounting the tile to the building surface. The flexible cement layer is preferably textured to be aesthetically appealing. The flexible cement layer preferably includes a mixture of a cement aggregate; an acrylic resin; a water-based paint; and a waterproof rubber material. The backing layer may be formed of laminate sheet material, peg board or formica sheet material. A process is also provided of manufacturing a building tile, including the steps of providing a flexible backing layer having a backing layer forward face and a backing layer rearward face; abrading the backing layer forward face; mixing an aggregate cement with an acrylic resin until a false set is reached; mixing into the aggregate cement and acrylic resin mixture a waterproof rubber material; and spreading the mixture over the backing layer forward face. The process preferably includes the additional steps of adding adhesive as needed to reach a mixture consistency suitable for spreading, coloring the mixture, texturing the mixture, and sealing the mixture using with a surface sealer.

In U.S. Patent Number, 6,027,599, invented by, Wang, titled, Method for manufacturing knockdown safety soft floor tile, a method for manufacturing knockdown safety soft floor tiles. The method includes steps of cleaning up an oil layer on the surface of the EVA board, using photography to print a predetermined picture on transfer printing paper, attaching the transfer printing paper with the picture to the surface of the EVA board, rolling and compressing the transfer printing paper with a high temperature roller, tearing away the transfer printing paper and leaving the picture on the EVA board and cutting the EVA board to have predetermined dimensions defining a floor tile.